

A New Species of *Platycerium* from Peninsular Malaysia

Aziz BIDIN & Razali JAMAN

Botany Department, Faculty of Life Sciences
Universiti Kebangsaan Malaysia Bangi, Selangor Malaysia

EFFECTIVE PUBLICATION DATE: 24 JAN. 1987

Abstract

A new species of *Platycerium* from Peninsular Malaysia, *P. platylobum* Aziz Bidin & Razali Jaman is described.

Platycerium platylobum* Aziz Bidin & Razali Jaman *sp. nov.

Plates 1 & 2

Platycerio coronario (Koë nig ex Muller) Desv. affinis, ab ea differt: paleis rhizomatis usque 20×5 mm tantum, apicem versus angustatis, marginibus costae usque apicem manifeste prominentibus; lobis ultimis ramorum duorum inferiorum frondium fertileum quam lobis ceteris frondium majoribus, usque 32×4 cm; lobis fertilibus stipitatis (stipite alato 3-5 cm longo), usque 13 cm latis, planis, tenuioribus, profunde aequaliter bilobatis, lobis ambo etiam leviter bilobatis; paraphysibus brevioribus, 3 vel 4 cellulis constitutis, radios 11-13 (-15) ferentibus; cellulis induratis annuli sporangiorum 5-6 (-8).

Agreeing in growth-habit and branching of fronds with *Platycerium coronarium* (Koë nig ex Muller) Desv., differing as follows: rhizomes-scales to 20 mm long and 5 mm wide only, narrowed towards their apices, the prominent margins of the thickened median band (costa) distinct to the apex of each scale; ultimate lobes of the basal two branches of fertile fronds to 32×4 cm, much longer and wider than the ultimate lobes of other branches; fertile lobe stalked (stalk winged, 3-5 cm long), to 13 cm wide, flat, thinner than in *P. coronarium*, deeply bilobed; paraphyses much shorter, consisting of 3 or 4 cells, their rays 11-13 (-15) in number; undurated cells of the annulus of sporangia 5-6 (-8).

Aziz Bidin & Razali Jaman PL 149: Langkawi Island, road to Padang Lunas, c. 30 m alt., 12 Feb. 86. Epiphyte, uncommon (Holotype: UKMB; Isotype: K).

Distribution. Langkawi Island. The ferns were absent from the other islands in the group as well as the interior of Perlis and northern Kedah, all of which share the same monsoonal climate.

Ecology. The species was first found on an old rubber tree, about 4 m high from the base of the trunk, in a village near Padang Lunas about 5 km from Kuah Town. No other species of *Platycerium* was observed in the vicinity. Later collections were from rubber trees in a plantation in Kisap, c. 50 m elevation, about 12 km from Kuah town. There, all the three species were found. *P. coronarium* was found on the higher branches of tall trees while *P. holttumii* and *P. platylobum* were on low branches, 2-5 m above the ground.

This new species differs from other *Platycerium* species which also bear sori on individual lobes in that each individual lobe here has a deep, median incision, the distal part bi-lobed on each side of the incision, with the result that the whole resemble a pair of butterfly wings as opposed to the shape in *P. coronarium* which is kidney or semi-circular and the one in *P. ridleyi*, obovate or elliptical (respectively Holttum, 1968 and Hennipman & Ros, 1982). In this species too, the entire fertile lobe is flat as opposed to concave in both the other two; the paraphyses are

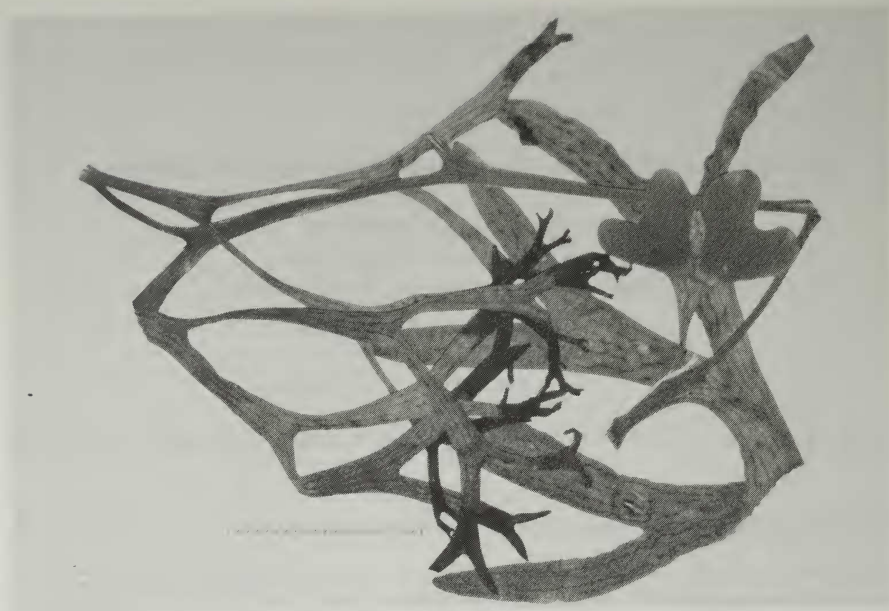


Plate 1. *Platycerium platylobum*, fertile frond.



Plate 2. *Platycerium platylobum*, fertile lobe.

short-stalked (3 to 4 cells long) as against longer stalks in *P. coronarium* (7 to 8 cells long) and *P. ridleyi* (8 to 10 cells). The species is only known from Langkawi Island whereas *P. coronarium* is common throughout the lowlands of Peninsular Malaysia and *P. ridleyi* is limited to the southern part of the Peninsula, i.e., Johore and Singapore (Holtum, 1968).

Acknowledgements

The senior author is grateful to Prof. R.E. Holtum for guidance and encouragement and for the Latin diagnosis, to the Keeper and Curator of the Herbarium, Royal Botanic Gardens Kew for the use of materials and to the staff of the Office of Forest, Langkawi for allowing the authors to carry out a survey of the pteridophytes of Langkawi Islands. The field work was supported by Universiti Kebangsaan Malaysia Research Grant No. 123/85. Our thanks must also be recorded to Mr. A. Zainuddin for his competent assistance in the field and to the World Wildlife Fund Malaysia and the British Council for the travelling grant to enable the senior author to travel to Kew.

Literature Cited

- Hennipman, E. & M.C. Roos (1982). *A Monograph of the Fern Genus Platycerium (Polypodiaceae)*. North-Holland Publishing Company, Amsterdam, Oxford, New York.
- Holtum, R.E. (1968). *Flora of Malaya*, 2, *Ferns of Malaya*, Government Printer, Singapore.